**Amendments to the Drawings:**

The attached sheet of drawings includes changes to Figure 1A. This sheet, which includes Figure 1A and Figure 1B, replaces the original sheet including Figure 1A and Figure 1B. Previously omitted reference numerals 11 and 12 have been added to Figure 1A.

Attachment: Replacement Sheet
Annotated Sheet Showing Changes

## REMARKS/ARGUMENTS

Responsive to the Non – Final Office Action mailed August 24, 2005, Applicants provide the following remarks. Reconsideration and allowance of the subject application, as amended, are respectfully requested. All objections and rejections are respectfully traversed.

### Amendments to the Drawings

The attached sheet of drawings includes changes to Figure 1A. This sheet, which includes Figure 1A and Figure 1B, replaces the original sheet including Figure 1A and Figure 1B. Previously omitted reference numerals 11 and 12, designating the transmitter and receiver, respectively, have been added to Figure 1A. No new matter has been added. Support for this amendment may be found, for example, in originally filed claim 1 and at page 7, lines 13-30 (paragraph 28) of the specification.

### Amendments to the Specification

Applicants have amended the specification for consistency with the amendments to the drawings and to correct minor typographical errors. No new matter has been added.

### Claim Amendments

As a result of the present amendment, claims 1 – 6, 9-10, 12, 15 and 26-27 are presently pending. Claims 7-8, 11, 13-14, 16-25, and 28-29 have been cancelled, without prejudice. Claim 1 has been amended to incorporate limitations similar to limitations of claims 11 and 13. Independent claim 26 has been amended to incorporate limitations similar to limitations of claim of claim 28. Dependent claims 2-4, 9-10, 12 and 27 have been amended for consistency with the amendments to claims 1 and 26 and/or for clarity. Support for these amendments amendment may be found, for example, at page 10, lines 7-9 of the specification. No new matter has been added.

**37 CFR §1.83**

The Examiner objected to the drawings under 37 CFR §1.83(a) asserting that the "transmitter", the "receiver", and the "feedback loop" must be shown or the feature(s) cancelled from the claim(s). Applicants have amended Figure 1A to show the transmitter 11 and the receiver 12. No new matter has been added. Claims 13 and 14 reciting a "feedback loop" have been cancelled without prejudice, rendering the related drawing objection moot.

**35 USC §102**

The Examiner has rejected claim 16 under 35 USC §102(e) as being anticipated by Onaka et al. (U.S. Patent No. 6,785,042 B1, hereinafter "Onaka"). Claim 16 has been cancelled, without prejudice, rendering the Examiner's rejection thereof moot.

**35 USC §103**

Claims 1 – 29 are rejected under 35 USC §103(a) as being unpatentable over Onaka. Applicants respectfully traverse this rejection.

Independent claims 1 and 26, as amended, both require "a plurality of Raman assisted EDFA hybrid amplifiers, each having a Raman amplifier variable gain portion, an EDFA gain portion, and an optical attenuator coupled to an output of said EDFA gain portion" wherein the Raman amplifier gain portions provide "an associated gain whereby each of said EDFA gain portions has substantially the same input power." Applicants find nothing in Onaka that teaches or suggest a system or method as set forth independent claims 1 and 26.

Onaka is generally directed to a system wherein the optical power among respective channels of a WDM system is equalized by applying gain tilt compensation. Column 8, lines 60-64. As shown in Figure 1 of Onaka, the system "includes a tilt causing part 1, a Raman amplification generating part 2 connected to the tilt causing part 1, a tilt monitoring part 3 input with a part of output light from the Raman amplification generating part 2, and a Raman amplification controlling part 4 for receiving a monitored result of the tilt monitoring part 3 to thereby control an operation of the Raman amplification generating part 2." Column 8, Lines 45 – 52. (emphasis added). "The tilt causing part 1 causes wavelength characteristics (i.e. tilt) in

optical transmission powers among respective channels, relative to WDM signal light to be transmitted." Column 8, Lines 53 – 55. "The Raman amplification generating part 2 Raman amplifies the WDM signal light form the tilt causing part 1, so as to compensate the titled caused at the tilt causing part 1 to thereby equalizes (sic) optical transmission powers among the respective channels." Column 8, Lines 60-64.

Onaka thus involves gain tilt compensation, and is devoid of any teaching or suggestion of "a plurality of Raman assisted EDFA hybrid amplifiers, each having a Raman amplifier variable gain portion, an EDFA gain portion, and an optical attenuator coupled to an output of said EDFA gain portion" wherein the Raman amplifier gain portions provide "an associated gain whereby each of said EDFA gain portions has substantially the same input power", as set forth in independent claims 1 and 26. In fact, Onaka clearly teaches away from the claimed invention. For example, the teaching in Onaka of dynamically controlling the gain wavelength characteristics of Raman amplification to equalize gain tilt in an input signal would lead one of ordinary skilled in the art to avoid a system wherein Raman amplifier gain portions provide "an associated gain whereby each of said EDFA gain portions has substantially the same input power", as claimed.

Since Onaka fails to teach or suggest limitations of claims 1 and 26 requiring "a plurality of Raman assisted EDFA hybrid amplifiers, each having a Raman amplifier variable gain portion, an EDFA gain portion, and an optical attenuator coupled to an output of said EDFA gain portion" wherein the Raman amplifier gain portions provide "an associated gain whereby each of said EDFA gain portions has substantially the same input power", Applicants respectfully submit that the claims 1 and 26 could not have been obvious in view of Onaka that the time the invention was made. Claims 2– 6, 9-10, 12, 15 and 27 depend directly or indirectly from claim 1 or 26 and are allowable by virtue of their dependency as well as for their own limitations. Claims 7-8, 11, 13-14, 16-25, and 28-29 have been cancelled without prejudice, rendering the rejection thereof moot. Applicants respectfully request, therefore, that the rejection of claims 1 – 29 under 35 USC §103(a) as being unpatentable over Onaka et al. be withdrawn upon reconsideration.

In light of the foregoing remarks, it is believed that all of the presently pending claims are in a condition for allowance. Allowance of the application is respectfully requested. In the event the Examiner deems personal contact desirable in disposition of this application, the Examiner is respectfully requested to call the undersigned attorney at (603) 668-6560.

No fees are believed to be due. In the event there are any fee deficiencies, please charge them (or credit any overpayment) to our Deposit Account No. 50-2121.

Respectfully submitted,

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Appl/ No. 09/991,126
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Reply to Office action of August 24, 2005
Annotated Sheet Showing Changes

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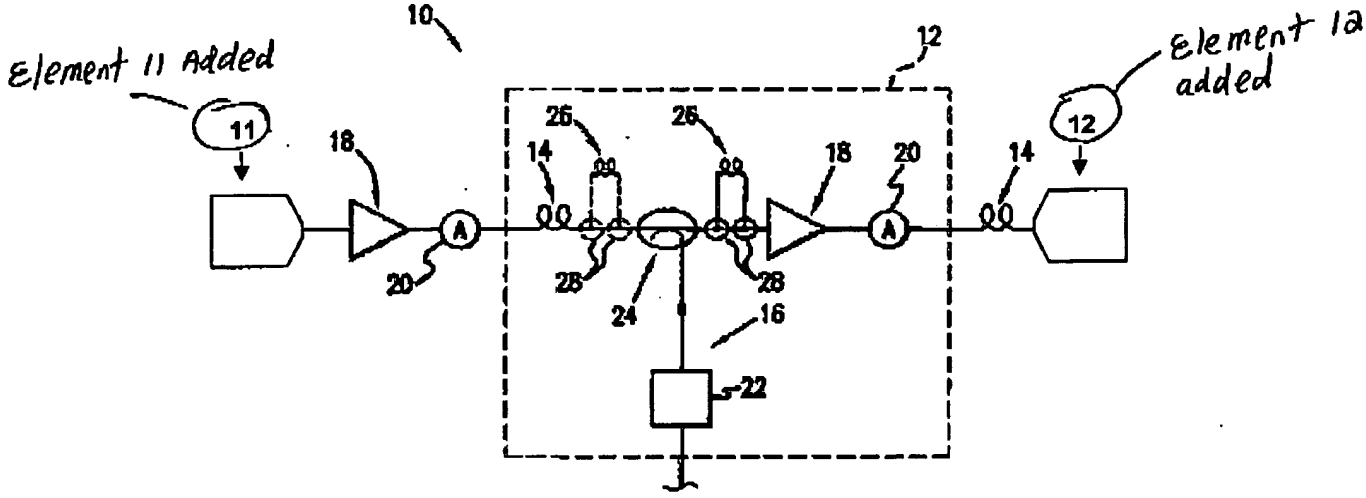


FIG. 1A

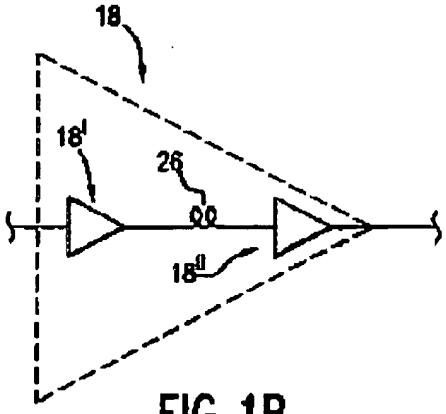


FIG. 1B